

IN THE CLAIMS

1. (currently amended) A method of recording and reproducing data to a recording medium, comprising the steps of:

comparing recording medium user identification data read from the recording medium upon which are recorded the user identification data along with main data with recorder and player user identification data read from a data recorder and player;

detecting whether a user identification data server is connected to the data recorder and player;

enabling the data recorder and player to record ~~and/or and~~ reproduce the main data to ~~and/or and~~ from the recording medium when the recording medium user identification data are coincident with the recorder and player user identification data a first number of times; and

enabling the data recorder and player to record ~~and/or and~~ reproduce the main data to ~~and/or and~~ from the recording medium when the recording medium user identification data are coincident with the recorder and player user identification data and when the user identification data server is connected to the data recorder and player, a second number of times which is greater than the first number of times.

2. (previously presented) The method according to claim 1, wherein:

further recorded on the recording medium are management data to manage recordation to and reproduction from the recording medium; and

the main data are recorded to and reproduced from the recording medium based on the management data read from the

recording medium when the recording medium user identification data are not coincident with the recorder and player user identification data.

3. (previously presented) The method according to claim 1, wherein when the recording medium user identification data are coincident with the recorder and player user identification data the main data to be recorded in the recording medium are encrypted with the recorder and player user identification data being taken as an encryption key and recorded to the recording medium.

4. (previously presented) The method according to claim 3, wherein the recorder and player user identification data are buried in the main data to be recorded to the recording medium.

5. (previously presented) The method according to claim 3, wherein the recorder and player user identification data are encrypted and buried in the main data to be recorded to the recording medium.

6. (previously presented) The method according to claim 1, wherein:

    further recorded in the recording medium are management data to manage recordation to and reproduction from the recording medium; and

    the main data are reproduced from the recording medium based on the management data read from the recording medium when the recording medium user identification data are not coincident with

the recorder and player user identification data.

7. (previously presented) The method according to claim 6, further comprising the step of permitting the data reproduction from the recording medium when the recording medium user identification data are not coincident with the recorder and player user identification data and the recording medium user identification data are specific identification data.

8. (previously presented) The method according to claim 7, wherein the specific identification data indicate that the recording medium is an original one.

9. (previously presented) The method according to claim 1, wherein the recorder and player user identification data are set by a user.

10. (previously presented) The method according to claim 9, wherein the recorder and player user identification data include a user name.

11. (previously presented) A method of recording data to a recording medium, comprising the steps of:

comparing recording medium user identification data read from the recording medium upon which are recorded the recording medium user identification data along with main data with recorder and player user identification data read from data recorder and player;

detecting whether a user identification data server is connected to the data recorder and player;

enabling the data recorder and player to record the main data to the recording medium when the recording medium user identification data are coincident with the recorder and player user identification data a first number of times; and

enabling the data recorder and player to record the main data to the recording medium when the recording medium user identification data are coincident with the recorder and player user identification data and when the user identification data server is connected to the data recorder and player, a second number of times which is greater than the first number of times.

12. (previously presented) The method according to claim 11, wherein:

further recorded on the recording medium management data to manage recording to the recording medium; and

the main data are recorded to the recording medium based on the management data read from the recording medium when the recording medium user identification data are not coincident with the recorder and player user identification data.

13. (previously presented) The method according to claim 11, wherein when the recording medium user identification data are coincident with the recorder and player user identification data the main data to be recorded to the recording medium are encrypted with the recorder and player user identification data as an encryption key and then recorded to the recording medium.

14. (previously presented) The method according to claim 13, wherein the recorder and player user identification data are buried in the main data to be recorded to the recording medium.

15. (previously presented) The method according to claim 14, wherein the recorder and player user identification data are encrypted and buried in the main data to be recorded to the recording medium.

16. (previously presented) The method according to claim 11, wherein the recorder and player user identification data are set by a user.

17. (previously presented) The method according to claim 16, wherein the recorder and player user identification data include a user name.

18. (previously presented) A recording-medium recorder, comprising:

a head operable to scan a recording medium upon which are stored recording medium user identification data along with main data;

a memory in which are recorded memory user identification data; and

a controller operable to compare the recording medium user identification data with the memory user identification data and to control operations for playback of the recording medium based on a result comparison and to detect whether a user identification data server is connected to the recording-medium recorder,

wherein the recording-medium recorder is operable to record the main data to the recording medium when the recording medium user identification data are coincident with the memory user identification data a first number of times, and

wherein the recording-medium recorder is operable to record the main data to the recording medium when the recording medium user identification data are coincident with the memory user identification data and when the user identification data server is connected to the data recorder and player, a second number of times which is greater than the first number of times.

19. (previously presented) The apparatus according to claim 18, wherein when the recording medium user identification data are coincident with the memory user identification data the controller controls the head to record the main data to recording medium.

20. (currently amended) The apparatus according to claim 18, wherein the memory is provided in the user identification data server connected to a data recorder and player.

21. (previously presented) The apparatus according to claim 20, wherein the controller makes mutual authentication with the user identification data server when it is judged that the user identification data server is connected to the data recorder and player.

22. (previously presented) The apparatus according to claim 21, wherein when the authentication is successful the controller instructs the user identification data server to read the

memory user identification data.

23. (previously presented) The apparatus according to claim 22, wherein the memory user identification data are encrypted and sent from the user identification data server to the controller.

24. (previously presented) The apparatus according to claim 21, wherein when the authentication is not successful the controller ceases recording to the recording medium.

25. (previously presented) The apparatus according to claim 21, wherein when it is judged that the user identification data server is not connected to the data recorder and player, the controller prompts a user to connect the user identification data server to the data recorder and player.

26. (previously presented) The apparatus according to claim 19, wherein:

further recorded on the recording medium are management data to manage recording to the recording medium; and

the controller records the main data to the recording medium based on the management data read from the recording medium when the recording medium user identification data are not coincident with the memory user identification data.

27. (previously presented) The apparatus according to claim 26, wherein when the recording medium user identification data are coincident with the memory user identification data the main data to be recorded to the recording medium are encrypted with recorder and

player the user identification data being taken as an encryption key and then recorded by the head to the recording medium.

28. (previously presented) The apparatus according to claim 27, wherein the memory user identification data are buried in the main data to be recorded to the recording medium.

29. (previously presented) The method according to claim 28, wherein the controller encrypts the memory user identification data and buries it in the main data to be recorded to the recording medium.

30. (previously presented) The apparatus according to claim 18, wherein user identification data set by a user are written to the memory.

31. (previously presented) The apparatus according to claim 18, wherein user identification data to be stored into the memory is set by a user.

32. (previously presented) The apparatus according to claim 31, wherein the user identification data include a user name.

33. (previously presented) A recording-medium playback method, comprising the steps of:

comparing recording medium user identification data read from a recording medium upon which are recorded the recording medium user identification data along with main data with recorder and player user identification data read from a data recorder and player;

detecting whether a user identification data server is connected to the data recorder and player;

enabling the data recorder and player to reproduce the main data from the recording medium when the recording medium user identification data are coincident with the data recorder and player user identification a first number of times; and

enabling the data recorder and player to reproduce the main data from the recording medium when the recording medium user identification data are coincident with the data recorder and player user identification and when the user identification data server is connected to the data recorder and player, a second number of times which is greater than the first number of times.

34. (previously presented) The method according to claim 33, wherein:

further recorded on the recording medium are management data to manage operations of data reproduction from the recording medium; and

the main data are reproduced from the recording medium based on the management data read from the recording medium when the recording medium user identification data are not coincident with the recorder and player user identification data.

35. (previously presented) The method according to claim 34, wherein when the recording medium user identification data are not coincident with the recorder and player user identification data and when the recording medium user identification data are specific identification data playback of the recording medium is allowed.

36. (previously presented) The method according to claim 35, wherein the specific identification data indicate that the recording medium is an original one.

37. (previously presented) The method according to claim 33, wherein:

    encrypted data are recorded on the recording medium; and  
    the main data read from the recording medium are decrypted using the recording medium user identification data as an encryption key when the recording medium user identification data are coincident with the recorder and player user identification data.

38. (previously presented) The method according to claim 33, wherein the recorder and player user identification data are set by a user.

39. (previously presented) The method according to claim 38, wherein the user identification data include a user name.

40. (previously presented) A recording-medium player, comprising:

    a head operable to scan a recording medium upon which are recorded encrypted data as well as at least recording medium user identification data and reproduction management data;

    a memory in which are stored memory user identification data; and

    a controller operable to compare the recording medium user identification data with the memory user identification data and

to control operations for playback of the recording medium based on a result of comparison and to detect whether a user identification data server is connected to the recording-medium player,

wherein the recording-medium recorder is operable to reproduce the main data from the recording medium when the recording medium user identification data are coincident with the memory user identification data a first number of times, and

wherein the recording-medium player is operable to reproduce the main data from the recording medium when the recording medium user identification data are coincident with the memory user identification data and when the user identification data server is connected to the data recorder and player, a second number of times which is greater than the first number of times.

41. (previously presented) The apparatus according to claim 40, wherein when the recording medium user identification data are coincident with the memory user identification data the controller allows the reproduction of the main data from the recording medium.

42. (previously presented) The apparatus according to claim 41, wherein when the recording medium user identification data are coincident with the memory user identification data the controller decrypts the main data read by the head from the recording medium using the recording medium user identification data.

43. (previously presented) The apparatus according to claim 42, wherein when the recording medium user identification data cannot be detected the controller controls the operations for playback of the

recording medium based on the reproduction management data read from the recording medium.

44. (previously presented) The apparatus according to claim 40, wherein the memory is provided in the user identification data server connected to the data recorder and player.

45. (previously presented) The apparatus according to claim 40, wherein the controller performs mutual authentication with the user identification data server when it is judged that the user identification data server is connected to the data recorder and player.

46. (previously presented) The apparatus according to claim 45, wherein when the authentication is successful the controller instructs the memory user identification data server to read the user identification data from the memory.

47. (previously presented) The apparatus according to claim 46, wherein the memory user identification data are encrypted and sent from the user identification data server.

48. (previously presented) The apparatus according to claim 45, wherein when the authentication is not successful the controller ceases the operations for playback from the recording medium.

49. (previously presented) The apparatus according to claim 45, wherein when it is judged that the user identification data server is not connected to the data recorder and player the controller

prompts a user to connect the user identification data server to the data recorder and player.

50. (previously presented) The apparatus according to claim 41, wherein when the recording medium user identification data are not coincident with the user identification data memory and the recording medium user identification data are a specific identification data the controller allows the reproduction of data from the recording medium.

51. (previously presented) The apparatus according to claim 50, wherein the specific identification data indicate the recording medium is an original one.

52. (previously presented) The apparatus according to claim 50, wherein the user identification data set by the user are written to the memory.

53. (previously presented) The apparatus according to claim 40, wherein the recording medium user identification data are set by a user.

54. (Previously presented) The apparatus according to claim 53, wherein the user identification data include a user name.

55. (previously presented) A method of controlling data copying, comprising the steps of:

comparing main data user identification data read from main data within which at least the main data user identification data are

buried with recorder and player user identification data read from a data recorder and player;

detecting whether a user identification data server is connected to the data recorder and player;

enabling the data recorder and player to copy the main data when the main data user identification data are coincident with the recorder and player user identification data a first number of times; and

enabling the data recorder and player to copy the main data when the main data user identification data are coincident with the recorder and player user identification data and when the user identification data server is connected to the data recorder and player a second number of times which is greater than the first number of times.

56. (previously presented) The method according to claim 55, wherein:

the main data further includes management data to manage operations of copying the data; and

the data copying is controlled based on the management coincident with the recorder and player user identification data.

57. (previously presented) The method according to claim 56, wherein when the main data user identification data are coincident with the recorder and player user identification data the main data user identification data are encrypted using the main data user identification data as an encryption key before being outputted.

58. (previously presented) The method according to claim 57, wherein the recorder and player user identification data are buried in the main data.

59. (previously presented) The method according to claim 57, wherein the recorder and player user identification data are encrypted and buried into the main data.

60. (previously presented) The method according to claim 56, wherein when the management data indicates that billing is required for copying the main data it is judged whether the billing is possible and the copying is performed when a result of judgment indicates that the billing is possible.

61. (previously presented) The method according to claim 60, wherein the billing is such that a number of times that main data can be copied is decremented.

62. (previously presented) The method according to claim 61, wherein when it is judged that the billing is not possible and the number of times main data can be copied is not incremented, the copying operation is ceased.

63. (previously presented) The method according to claim 55, wherein the recorder and player user identification data are set by a user.

64. (previously presented) The method according to claim 63, wherein the user identification data include a user name.

65. (previously presented) A data reproducing method, comprising the steps of:

comparing main data user identification data extracted from main data within which at least the main data user identification data are buried with recorder and player user identification data read from a data recorder and player;

detecting whether a user identification data server is connected to the data recorder and player;

enabling the data recorder and player to reproduce the main data when the main data user identification data are coincident with the recorder and player user identification data a first number of times; and

enabling the data recorder and player to reproduce the main data when the main data user identification data are coincident with the recorder and player user identification data and when the user identification data server is connected to the data recorder and player, a second number of times which is greater than the first number of times.

66. (previously presented) The method according to claim 65, wherein:

the main data further includes a management data to manage an operation of reproducing the main data; and

the main data are reproduced based on the management data when the main data user identification data are not coincident with the recorder and player user identification data.

67. (previously presented) The method according to claim 66, wherein when the main data user identification data cannot be detected from the main data the operation of reproducing the main data is controlled based on the management data.

68. (previously presented) The method according to claim 66, wherein when the main data user identification data are not coincident with the recorder and player user identification data and the main data user identification data are specific identification data the reproduction of the main data is allowed.

69. (previously presented) The method according to claim 68, wherein the specific identification data indicate that the recording medium is an original one.

70. (previously presented) The method according to claim 66, wherein when the management data indicate that billing is required for reproduction of the main data it is judged whether the billing is possible and a main data are reproduced when the result of judgment indicates that the billing is possible.

71. (previously presented) The method according to claim 70, wherein the billing is performed by decrementing a number of times the reproduction can be performed.

72. (previously presented) The method according to claim 71, wherein when it is judged that the billing is not possible and the number of times of reproduction is not incremented the operation of

reproduction is inhibited.

73. (previously presented) The method according to claim 65, wherein:

the main data include encrypted data; and

the main data user identification data are decrypted using the main data user identification data when the main data user identification data are coincident with the recorder and player user identification data.

74. (previously presented) The method according to claim 65, wherein the recorder and player user identification data are set by a user.

75. (previously presented) The method according to claim 74, wherein the user identification data include a user name.